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Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu Leu
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Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp Gly
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Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly Asn
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Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser Leu
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Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn Phe
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Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser Leu
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Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val His
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Arg Leu Ala Tyr Leu Asp Tyr Tyr Leu Asp Asp Ile Ile Asp Leu Phe
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6

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Gln Cys Gln Leu Glu Gln Leu Ser Pro Thr Ala Phe Asn Ser Leu Ser
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Ser Leu Gln Val Leu Asn Met Ser His Asn Asn Phe Phe Ser Leu Asp
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Thr Phe Pro Tyr Lys Cys Leu Asn Ser Leu Gln Val Leu Asp Tyr Ser
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Leu Asn His Ile Met Thr Ser Lys Lys Gln Glu Leu Gln His Phe Pro
            515                520                525

Ser Ser Leu Ala Phe Leu Asn Leu Thr Gln Asn Asp Phe Ala Cys Thr
    530                535                540

Cys Glu His Gln Ser Phe Leu Gln Trp Ile Lys Asp Gln Arg Gln Leu
545                550                555                560

Leu Val Glu Val Glu Arg Met Glu Cys Ala Thr Pro Ser Asp Lys Gln
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Gly Met Pro Val Leu Ser Leu Asn Ile Thr Cys Gln Met Asn Lys Thr
            580                585                590

Ile Ile Gly Val Ser Val Leu Ser Val Leu Val Val Ser Val Val Ala
    595                600                605

Val Leu Val Tyr Lys Phe Tyr Phe His Leu Met Leu Leu Ala Gly Cys
    610                615                620

Ile Lys Tyr Gly Arg Gly Glu Asn Ile Tyr Asp Ala Phe Val Ile Tyr
625                630                635                640

Ser Ser Gln Asp Glu Asp Trp Val Arg Asn Glu Leu Val Lys Asn Leu
            645                650                655

Glu Glu Gly Val Pro Pro Phe Gln Leu Cys Leu His Tyr Arg Asp Phe
            660                665                670

Ile Pro Gly Val Ala Ile Ala Ala Asn Ile Ile His Glu Gly Phe His
    675                680                685

Lys Ser Arg Lys Val Ile Val Val Val Ser Gln His Phe Ile Gln Ser
    690                695                700

Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala Gln Thr Trp Gln Phe Leu
705                710                715                720
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8

Ser Ser Arg Ala Gly Ile Ile Phe Ile Val Leu Gln Lys Val Glu Lys
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Thr Leu Leu Arg Gln Gln Val Glu Leu Tyr Arg Leu Leu Ser Arg Asn
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Thr Tyr Leu Glu Trp Glu Asp Ser Val Leu Gly Arg His Ile Phe Trp
            755   760   765

Arg Arg Leu Arg Lys Ala Leu Leu Asp Gly Lys Ser Trp Asn Pro Glu
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9

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<213> Rattus norvegicus

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Pro Asn Ile Thr Tyr Gln Cys Met Asp Gln Asn Leu Ser Lys Ile Pro
         35                  40                  45

His Asp Ile Pro Tyr Ser Thr Lys Asn Leu Asp Leu Ser Phe Asn Pro
      50                  55                  60

Leu Lys Ile Leu Arg Ser Tyr Ser Phe Thr Asn Phe Ser Gln Leu Gln
 65                  70                  75                  80

Trp Leu Asp Leu Ser Arg Cys Glu Ile Glu Thr Ile Glu Asp Lys Ala
                85                  90                  95

Trp His Gly Leu Asn Gln Leu Ser Thr Leu Val Leu Thr Gly Asn Pro
            100                 105                 110

Ile Lys Ser Phe Ser Pro Gly Ser Phe Ser Gly Leu Thr Asn Leu Glu
         115                 120                 125

Asn Leu Val Ala Val Glu Thr Lys Met Thr Ser Leu Glu Gly Phe His
      130                 135                 140

Ile Gly Gln Leu Ile Ser Leu Lys Lys Leu Asn Val Ala His Asn Leu
145                 150                 155                 160

Ile His Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr Asn Leu
            165                 170                 175

Glu His Val Asp Leu Ser Tyr Asn Tyr Ile Gln Thr Ile Ser Val Lys
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Asp Leu Gln Phe Leu Arg Glu Asn Pro Gln Val Asn Leu Ser Leu Asp
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Leu Ser Leu Asn Pro Ile Asp Ser Ile Gln Ala Gln Ala Phe Gln Gly
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Ile Arg Leu His Glu Leu Thr Leu Arg Ser Asn Phe Asn Ser Ser Asn
225   230   235   240

Val Leu Lys Met Cys Leu Gln Asn Met Thr Gly Leu His Val His Arg
                245   250   255

Leu Ile Leu Gly Glu Phe Lys Asn Glu Arg Asn Leu Glu Ser Phe Asp
            260   265   270

Arg Ser Val Met Glu Gly Leu Cys Asn Val Ser Ile Asp Glu Phe Arg
        275   280   285

Leu Thr Tyr Ile Asn His Phe Ser Asp Asp Ile Tyr Asn Leu Asn Cys
    290   295   300

Leu Ala Asn Ile Ser Ala Met Ser Phe Thr Gly Val His Ile Lys His
305   310   315   320

Ile Ala Asp Val Pro Arg His Phe Lys Trp Gln Ser Leu Ser Ile Ile
            325   330   335

Arg Cys His Leu Lys Pro Phe Pro Lys Leu Ser Leu Pro Phe Leu Lys
            340   345   350

Ser Trp Thr Leu Thr Thr Asn Arg Glu Asp Ile Ser Phe Gly Gln Leu
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Ala Leu Pro Ser Leu Arg Tyr Leu Asp Leu Ser Arg Asn Ala Met Ser
    370   375   380

Phe Arg Gly Cys Cys Ser Tyr Ser Asp Phe Gly Thr Asn Asn Leu Lys
385   390   395   400

Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile Leu Met Ser Ala Asn Phe
            405   410   415

Met Gly Leu Glu Glu Leu Glu Tyr Leu Asp Phe Gln His Ser Thr Leu
            420   425   430

Lys Lys Val Thr Glu Phe Ser Val Phe Leu Ser Leu Glu Lys Leu Leu
            435   440   445

Tyr Leu Asp Ile Ser Tyr Thr Asn Thr Lys Ile Asp Phe Asp Gly Ile
    450   455   460

Phe Leu Gly Leu Ile Ser Leu Asn Thr Leu Lys Met Ala Gly Asn Ser
465   470   475   480

Phe Lys Asp Asn Thr Leu Ser Asn Val Phe Thr Asn Thr Thr Asn Leu
            485   490   495

Thr Phe Leu Asp Leu Ser Lys Cys Gln Leu Glu Gln Ile Ser Arg Gly
        500   505   510

11

Val Phe Asp Thr Leu Tyr Arg Leu Gln Leu Leu Asn Met Ser His Asn
        515   520   525

Asn Leu Leu Phe Leu Asp Pro Ser His Tyr Lys Gln Leu Tyr Ser Leu
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Arg Thr Leu Asp Cys Ser Phe Asn Arg Ile Glu Thr Ser Lys Gly Ile
545   550   555   560

Leu Gln His Phe Pro Lys Ser Leu Ala Val Phe Asn Leu Thr Asn Asn
                565   570   575

Ser Val Ala Cys Ile Cys Glu Tyr Gln Asn Phe Leu Gln Trp Val Lys
                580   585   590

Asp Gln Lys Met Phe Leu Val Asn Val Glu Gln Met Lys Cys Ala Ser
        595   600   605

Pro Ile Asp Met Lys Ala Ser Leu Val Leu Asp Phe Thr Asn Ser Thr
    610   615   620

Cys Tyr Ile Tyr Lys Thr Ile Ile Ser Val Ser Val Val Ser Val Leu
625   630   635   640

Val Val Ala Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu
            645   650   655

Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr
            660   665   670

Asp Ala Phe Val Ile Tyr Ser Ser Gln Asn Glu Asp Trp Val Arg Asn
        675   680   685

Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe Gln Leu Cys
    690   695   700

Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala Asn Ile
705   710   715   720

Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser
            725   730   735

Arg His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala
            740   745   750

Gln Thr Trp Gln Phe Leu Ser Ser Arg Ser Gly Ile Ile Phe Ile Val
    755   760   765

Leu Glu Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val Glu Leu Tyr
    770   775   780

Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Asn Ala Leu
785   790   795   800

Gly Arg His Ile Phe Trp Arg Arg Leu Lys Lys Ala Leu Leu Asp Gly
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Thr Leu Thr

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17

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<212> DNA
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41

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            20   25   30

Val Pro Asn Ile Thr Tyr Gln Cys Met Glu Leu Asn Phe Tyr Lys Ile
        35   40   45

Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe Asn
    50   55   60

Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu Leu
65   70   75   80

Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp Gly
                85   90   95

Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly Asn
            100   105   110

Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser Leu
        115   120   125

Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn Phe
    130   135   140

Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His Asn
145   150   155   160

45

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Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr Asn
                165              170             175

Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Ser Ile Tyr Cys
            180              185             190

Thr Asp Leu Arg Val Leu His Gln Met Pro Leu Leu Asn Leu Ser Leu
        195              200             205

Asp Leu Ser Leu Asn Pro Met Asn Phe Ile Gln Pro Gly Ala Phe Lys
    210              215             220

Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser Leu
225              230             235             240

Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val His
            245              250             255

Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Gly Asn Leu Glu Lys Phe
        260              265             270

Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu Phe
        275              280             285

Arg Leu Ala Tyr Leu Asp Tyr Tyr Leu Asp Asp Ile Ile Asp Leu Phe
    290              295             300

Asn Cys Leu Thr Asn Val Ser Ser Phe Ser Leu Val Ser Val Thr Ile
305              310             315             320

Glu Arg Val Lys Asp Phe Ser Tyr Asn Phe Gly Trp Gln His Leu Glu
            325              330             335

Leu Val Asn Cys Lys Phe Gly Gln Phe Pro Thr Leu Lys Leu Lys Ser
            340              345             350

Leu Lys Arg Leu Thr Phe Thr Ser Asn Lys Gly Gly Asn Ala Phe Ser
        355              360             365

Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn Gly
    370              375             380

Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr Ser
385              390             395             400

Leu Lys Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile Thr Met Ser Ser
            405              410             415

Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Phe Gln His Ser
            420              425             430

Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu Ser Leu Arg Asn
        435              440             445

Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe Asn
    450              455             460

Gly Ile Phe Asn Gly Leu Ser Ser Leu Glu Val Leu Lys Met Ala Gly
465              470             475             480
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46

```
Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Glu Leu Arg
                485                 490                 495

Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu Ser
            500                 505                 510

Pro Thr Ala Phe Asn Ser Leu Ser Ser Leu Gln Val Leu Asn Met Ser
            515                 520                 525

His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu Asn
    530                 535                 540

Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser Lys
545                 550                 555                 560

Lys Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn Leu
                565                 570                 575

Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu Gln
                580                 585                 590

Trp Ile Lys Asp Gln Arg Gln Leu Leu Val Glu Val Glu Arg Met Glu
        595         ·           600                 605

Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu Asn
    610                 615                 620

Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Leu Ser
625                 630                 635                 640

Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr Phe
                645                 650                 655

His Leu Met Leu Leu Ala Gly Cys Ile Lys Tyr Gly Arg Gly Glu Asn
            660                 665                 670

Ile Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp Val
        675                 680                 685

Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe Gln
    690                 695                 700

Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala
705                 710                 715                 720

Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val
                725                 730                 735

Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu
            740                 745                 750

Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser Arg Ala Gly Ile Ile Phe
            755                 760                 765

Ile Val Leu Gln Lys Val Glu Lys Thr Leu Leu Arg Gln Gln Val Glu
    770                 775                 780

Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Ser
785                 790                 795                 800

Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu Leu
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47

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Asp Gly Lys Ser Trp Asn Pro Glu Gly Thr Val Gly Thr Gly Cys Asn
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Trp Gln Glu Ala Thr Ser Ile
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 1               5                  10                  15

Phe Ser Cys Leu Thr Pro Gly Ser Leu Asn Pro Cys Ile Glu Val Val
            20                 25                  30

Pro Asn Ile Thr Tyr Gln Cys Met Asp Gln Lys Leu Ser Lys Val Pro
            35                 40                  45

Asp Asp Ile Pro Ser Ser Thr Lys Asn Ile Asp Leu Ser Phe Asn Pro
     50                 55                  60

Leu Lys Ile Leu Lys Ser Tyr Ser Phe Ser Asn Phe Ser Glu Leu Gln
 65                 70                  75                  80

Trp Leu Asp Leu Ser Arg Cys Glu Ile Glu Thr Ile Glu Asp Lys Ala
                85                 90                  95

Trp His Gly Leu His His Leu Ser Asn Leu Ile Leu Thr Gly Asn Pro
            100                105                 110

Ile Gln Ser Phe Ser Pro Gly Ser Phe Ser Gly Leu Thr Ser Leu Glu
            115                120                 125

Asn Leu Val Ala Val Glu Thr Lys Leu Ala Ser Leu Glu Ser Phe Pro
    130                135                 140

Ile Gly Gln Leu Ile Thr Leu Lys Lys Leu Asn Val Ala His Asn Phe
145                150                 155                 160

Ile His Ser Cys Lys Leu Pro Ala Tyr Phe Ser Asn Leu Thr Asn Leu
            165                170                 175

Val His Val Asp Leu Ser Tyr Asn Tyr Ile Gln Thr Ile Thr Val Asn
            180                185                 190

Asp Leu Gln Phe Leu Arg Glu Asn Pro Gln Val Asn Leu Ser Leu Asp
        195                200                 205

Met Ser Leu Asn Pro Ile Asp Phe Ile Gln Asp Gln Ala Phe Gln Gly
    210                215                 220

Ile Lys Leu His Glu Leu Thr Leu Arg Gly Asn Phe Asn Ser Ser Asn
225                230                 235                 240

Ile Met Lys Thr Cys Leu Gln Asn Leu Ala Gly Leu His Val His Arg
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48

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                       245                 250                 255
Leu Ile Leu Gly Glu Phe Lys Asp Glu Arg Asn Leu Glu Ile Phe Glu
            260             265             270

Pro Ser Ile Met Glu Gly Leu Cys Asp Val Thr Ile Asp Glu Phe Arg
            275             280             285

Leu Thr Tyr Thr Asn Asp Phe Ser Asp Asp Ile Val Lys Phe His Cys
    290             295             300

Leu Ala Asn Val Ser Ala Met Ser Leu Ala Gly Val Ser Ile Lys Tyr
305             310             315             320

Leu Glu Asp Val Pro Lys His Phe Lys Trp Gln Ser Leu Ser Ile Ile
            325             330             335

Arg Cys Gln Leu Lys Gln Phe Pro Thr Leu Asp Leu Pro Phe Leu Lys
            340             345             350

Ser Leu Thr Leu Thr Met Asn Lys Gly Ser Ile Ser Phe Lys Lys Val
            355             360             365

Ala Leu Pro Ser Leu Ser Tyr Leu Asp Leu Ser Arg Asn Ala Leu Ser
    370             375             380

Phe Ser Gly Cys Cys Ser Tyr Ser Asp Leu Gly Thr Asn Ser Leu Arg
385             390             395             400

His Leu Asp Leu Ser Phe Asn Gly Ala Ile Ile Met Ser Ala Asn Phe
            405             410             415

Met Gly Leu Glu Glu Leu Gln His Leu Asp Phe Gln His Ser Thr Leu
            420             425             430

Lys Arg Val Thr Glu Phe Ser Ala Phe Leu Ser Leu Glu Lys Leu Leu
            435             440             445

Tyr Leu Asp Ile Ser Tyr Thr Asn Thr Lys Ile Asp Phe Asp Gly Ile
    450             455             460

Phe Leu Gly Leu Thr Ser Leu Asn Thr Leu Lys Met Ala Gly Asn Ser
465             470             475             480

Phe Lys Asp Asn Thr Leu Ser Asn Val Phe Ala Asn Thr Thr Asn Leu
            485             490             495

Thr Phe Leu Asp Leu Ser Lys Cys Gln Leu Glu Gln Ile Ser Trp Gly
            500             505             510

Val Phe Asp Thr Leu His Arg Leu Gln Leu Leu Asn Met Ser His Asn
            515             520             525

Asn Leu Leu Phe Leu Asp Ser Ser His Tyr Asn Gln Leu Tyr Ser Leu
    530             535             540

Ser Thr Leu Asp Cys Ser Phe Asn Arg Ile Glu Thr Ser Lys Gly Ile
545             550             555             560

Leu Gln His Phe Pro Lys Ser Leu Ala Phe Phe Asn Leu Thr Asn Asn
            565             570             575
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49

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Ser Val Ala Cys Ile Cys Glu His Gln Lys Phe Leu Gln Trp Val Lys
            580             585             590

Glu Gln Lys Gln Phe Leu Val Asn Val Glu Gln Met Thr Cys Ala Thr
            595             600             605

Pro Val Glu Met Asn Thr Ser Leu Val Leu Asp Phe Asn Asn Ser Thr
    610             615             620

Cys Tyr Met Tyr Lys Thr Ile Ile Ser Val Ser Val Val Ser Val Ile
625             630             635             640

Val Val Ser Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu
            645             650             655

Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr
            660             665             670

Asp Ala Phe Val Ile Tyr Ser Ser Gln Asn Glu Asp Trp Val Arg Asn
            675             680             685

Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe His Leu Cys
    690             695             700

Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala Asn Ile
705             710             715             720

Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser
            725             730             735

Arg His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala
            740             745             750

Gln Thr Trp Gln Phe Leu Ser Ser Arg Ser Gly Ile Ile Phe Ile Val
            755             760             765

Leu Glu Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val Glu Leu Tyr
    770             775             780

Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Asn Pro Leu
785             790             795             800

Gly Arg His Ile Phe Trp Arg Arg Leu Lys Asn Ala Leu Leu Asp Gly
            805             810             815

Lys Ala Ser Asn Pro Glu Gln Thr Ala Glu Glu Glu Gln Glu Thr Ala
            820             825             830

Thr Trp Thr
            835
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